

comprising a plurality of parameters related to the transmission of messages over a second period shorter than the first and more recent than the first;

a processor arranged to calculate a weighted averaging of the first and second signatures to form an updated first signature;

[and a processor arranged to derive said anomalies using said signatures.]

an anomaly detector;

an input arranged to provide the signatures to the anomaly detector; and

wherein said anomaly detector is arranged to process the signatures to derive the anomalies by

detecting unexpected patterns in the transmission of message by the entity over the time period.

REMARKS

The independent claims are amended to clearly specify that an anomaly detector is used and that the signatures, once created are input to the anomaly detector. As amended the independent claims clearly specify that the signatures are processed by the anomaly detector to derive anomalies by detecting unexpected patterns in the transmission of messages. Basis for these amendments is found in the specification, for example at page 1 paragraph 2; page 43 paragraph 3 to page 44, and it is submitted that the amendments do not add matter to the specification.

In the advisory action of January 19, 2000 the Examiner applies In re Warmerdam and finds the Warmerdam fact pattern to be well within the scope of the claims of the present application. The Examiner is respectfully requested to reconsider this in the light of the amended claims. The applicants have carefully compared the claims of Warmerdam with the claims of the present application and submit that these two cases are not analogous.

Rejected claim 1 of Warmerdam specifies generating a data structure by locating an axis and then creating a hierarchy of bubbles. Notably, claim 1 of Warmerdam did not recite using the data structure to achieve a useful result. This is an important difference between the rejected claims of Warmerdam and those of the present application.

The independent claims of the present application specify not only creating a data structure (or signatures) in a distinctive way, but also recite using that data structure (or signatures) to achieve the useful result of detecting anomalies in the transmission of messages. These messages are not an abstract concept but are physical and useful.

In Warmerdam the claim is mathematical in nature unlike those of the present application. The court emphasized that claim 1 comprised the steps of locating a medial axis and creating a bubble hierarchy and that these steps comprise “nothing more than the manipulation of basic mathematical constructs”. However, detecting anomalies in the transmission of messages is clearly not a mathematical construct. The independent claims of the present application are clearly not analogous to those of Warmerdam.

In the advisory action of January 19, 2000 the Examiner states that in Warmerdam the Applicant limited the “entity” to a “robot”. Claim 5 of Warmerdam, which was directed to a machine, presumably the robot to which the Examiner refers, was accepted by the Court. The Examiner’s point about limiting to a “robot” is therefore not relevant.

The Examiner goes on to state that the “entity” in the claims of the present application could be a “robot”. This is the case as long as the robot is able to transmit messages as specified in claim 1. However, there is no problem with this. Such a robot is a practical and useful application.

The Examiner states that the “messages” in the claims of the present application could be a “bubble hierarchy”. This is the case but no problem arises as a result. The messages remain practical and useful. It is the Applicants' prerogative to use broad terms such as “entity” and “message” in the claims as long as the claim is specific enough to avoid the prior art (which is the case here as a result of the specified distinctive features of the signatures).

The Examiner states that terms such as “entity” and “message” in the claims are not limited to a specific practical application in the Warmerdam sense. It is submitted that the Examiner is mistaken in his interpretation of the Warmerdam requirements here. A practical application is all that is required; not a *specific* practical application. A useful and practical application is all that is required as explained in the State Street decision. The independent claims of the present application all specify a useful and practical application, that of detecting anomalies in the transmission of messages.

The independent claims all clearly specify creating signatures and using an anomaly detector to process these signatures to achieve the useful and practical result of detecting unexpected patterns in the transmission of messages by an entity. This differs significantly from the rejected claims of Warmerdam in which no useful practical result was claimed.

Answers to all the other claim rejections and objections raised by the Examiner are already on record and presumably the other rejections and objections have been overcome. Therefore it is submitted that the claims of the present application are in condition for allowance.

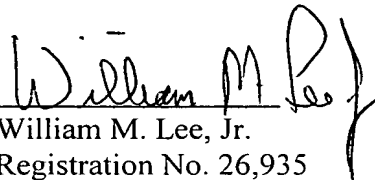
The advisory action of January 19, 2000 indicates that the date for response expired on that date (since it is the later of its mailing date or three months from the mailing date of the final rejection). Accordingly, an appropriate petition for a one month extension of time through February 19, 2000 is submitted herewith. Any additional charges should be deducted from deposit account number 12-0913.

Also, submitted herewith is a copy of Form PTO-1449 and copies of the two references identified thereon, as well as a copy of the International Search Report that brought the references to the attention of the applicants.

In view of the foregoing and the previous responses, it is believed that this application is now in condition for allowance, and the Examiner's further and favorable reconsideration in that regard is urged.

February 15, 2000

Respectfully submitted,


William M. Lee, Jr.
Registration No. 26,935

Lee, Mann, Smith, McWilliams,
Sweeney & Ohlson
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 368-6620
(312) 368-0034 (fax)